FORM PTO-1390 REV. 2/01T — U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371

ATTORNEY'S DOCKET NUMBER: 05725.1016

U.S. APPLICATION NO. (If known, see 37CFR1.5): 10/019331

INTERNATIONAL APPLICATION NO.	INTERNATIONAL FILING DATE	PRIORITY DATE CLAIMED
PCT/FR00/01763	June 23, 2000	June 29, 1999

TITLE OF INVENTION
HAIR COMPOSITIONS COMPRISING AT LEAST AN ADHEASIVE POLYMER AND SOLID PARTICLES

APPLICANT(S) FOR DO/EO/US
Henri SAMAIN and Isabelle ROLLAT

Applicant(s) herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☒ The US has been elected by the expiration of 19 months from the priority date (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c)(2)).
   a. ☐ is attached hereto (required only if not communicated by the International Bureau.
   b. ☒ has been communicated by the International Bureau.
   c. ☐ is not required, as the application was filed with the United States Receiving Office (RO/US).
6. ☒ An English language translation of the International Application as filed (35 U.S.C. 371 (c)(2)).
   a. ☒ is attached hereto.
   b. ☐ has been previously submitted under 35 U.S.C. 154 (d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3)).
   a. ☐ are attached hereto (required only if not communicated by the International Bureau).
   b. ☐ have been communicated by the International Bureau.
   c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
   d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).

Items 11 to 20 below concern document(s) or information included:

11. ☒ Information Disclosure Statement under 37 CFR 1.97 and 1.98
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☐ A FIRST preliminary amendment.
14. ☐ A SECOND or SUBSEQUENT preliminary amendment.
15. ☐ A Substitute specification.
16. ☐ A change of power of attorney and/or address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821-1.825.
18. ☐ A second copy of the published international application under 35 U.S.C. 154 (d)(4).
19. ☐ A second copy of the English language translation of the international application 35 U.S.C. 154 (d)(4).
20. ☒ Other items or information:
   a. ☒ Copy of cover page of International Publication No. WO 01/00150
   b. ☐ Copy of Notification of Missing Requirements.
   c. ☒ Copy of International Search Report

U.S. APPLICATION NO. (If known, see 37CFR 1.5)	INTERNATIONAL APPLICATION NO.	ATTORNEY'S DOCKET NUMBER
10/019331	PCT/FR00/01763	05725.0106

21. ☒ The following fees are submitted:

CALCULATIONS PTO USE ONLY

BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)):

Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO **$1040.00**

International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO **$890.00**

International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search fee (37 CFR 1.445(a)(2)) paid to USPTO **$740.00**

International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4) **$710.00**

International preliminary examination fee (37 CFR 1.482) paid to USPTOand all claims satisfied provisions of PCT Article 33 (1)-(4) **$100.00**

ENTER APPROPRIATE BASIC FEE AMOUNT =					$890.00	
Surcharge of $130.00 for furnishing the oath or declaration later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492 (e)).					$	
CLAIMS	NUMBER FILED		NUMBER EXTRA	RATE		
Total Claims	22	- 20 =	2	x $18.00	$36.00	
Independent Claims	1	-3 =		x $84.00	$	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)				+$280.00	$280.00	
TOTAL OF THE ABOVE CALCULATIONS =					$1206.00	
☐ Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by ½.					$	
SUBTOTAL =					$1206.00	
Processing fee of **$130.00** for furnishing the English translation later than ☐ 20 ☐ 30 months from the earliest priority date (37 CFR 1.492(f)).					$	
TOTAL NATIONAL FEE =					1206.00	
Fee for recording the enclosed assignment (37 CFR 1.21 (h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). **$40.00** per property. +					$	
TOTAL FEES ENCLOSED =					$1206.00	
					Amount to be refunded:	$
					charged:	$

a. ☒ A check in the amount of $ 1206.00 to cover the above fees is enclosed.

b. ☐ Please charge my Deposit Account No. _____ in the amount of $ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 06-0916. A duplicate copy of this sheet is enclosed.

d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137 (a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.
1300 I Street, N.W.
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DATED: December 28, 2001

SIGNATURE

Ernest F. Chapman Reg. No. 25,961

NAME/REGISTRATION NO.

HAIR COMPOSITIONS COMPRISING AT LEAST ONE ADHESIVE POLYMER AND SOLID PARTICLES

The invention relates to hair compositions comprising, in a cosmetically acceptable medium, at least one adhesive polymer and particles. The invention is also directed toward a cosmetic process comprising the use of this composition, and also to its use for manufacturing a cosmetic hair formulation.

For the purposes of the present invention, the expression "styling product" means a product intended to hold and/or fix the shape of the hairstyle.

Products intended to give the hair certain esthetic effects, such as coloring, sheen, conditioning or styling effects, are known. The products currently used are based on the use of molecules that are dissolved or in emulsion or dispersion in a cosmetic solvent. Among the emulsions or dispersions that may be mentioned are latices, which are polymers in dispersion.

It is moreover well known that certain cosmetic effects such as a make-up effect may be obtained by using solid particles. Thus, pigments are used to give color to lipsticks, nail varnishes or mascaras.

Such particles are hardly ever used in hair cosmetics,

since they produce an unpleasant, coarse feel. Furthermore, the particles deposited on the hair do not remain attached to the fibers. It is observed that they become detached from the hair with the least contact, for example by passing a hand through the hair. Gravity alone can also detach the particles. The consequences are disastrous, since the desired cosmetic effect is transient on the one hand, and the particles may stain the hands or clothing on the other hand, which is particularly unwelcome if they are colored or shiny.

Research efforts have made it possible to solve some of these problems. The best solution to date consists in combining the particles with fatty substances. The particles no longer fall under their own rate. However, they are still easy to detach from the fiber by friction, and problems arise associated with the use of fatty substances, such as poor cosmetic properties, a lank feel and a dirty appearance.

Efforts have been made to combine particles with polymers such as those commonly used in hair lacquers. However, such combinations do not make it possible to solve the problems mentioned above.

The Applicant has discovered, surprisingly and unexpectedly, that when solid particles are combined with certain polymers having a particular adhesive power, it

is possible to obtain cosmetic hair compositions that satisfy the requirements mentioned above.

One subject of the invention is a cosmetic hair composition comprising solid particles in a cosmetically acceptable medium, characterized in that it also comprises at least one adhesive polymer chosen such that the material resulting from the drying of this or these adhesive polymer(s) in the cosmetically acceptable medium has a detachment profile defined by at least one maximum detachment force F_{max} of greater than 1 N.

Another subject of the invention relates to a cosmetic hair process, characterized in that such a composition is applied to the hair.

Yet another subject of the invention relates to the use of such a composition in the manufacture of a styling, coloring, sheen or conditioning composition for the hair, and also to cosmetic hair products comprising this composition.

The preferred adhesive polymers are chosen such that the material resulting from the drying of this or these adhesive polymer(s) in the cosmetically acceptable medium has a glass transition temperature (Tg) of less than +10°C and has a detachment profile defined by at least:

(a) a maximum detachment force F_{max} > 1 newton, and

(b) when said temperature Tg is less than -15°C, by a separation energy $E_{(M/V)}$ of the material placed in contact with a glass surface, of less than 300 μJ.

The adhesive polymer toward which the present invention is particularly directed is the branched sulfonic polymer AQ 1350 sold by the company Eastman AQ1350. This polymer AQ 1350 is defined by:

- a Tg of 0°C
- a maximum detachment force F_{max} equal to 23 newtons.

According to the present invention, the expression "maximum detachment force F_{max}" means the maximum tensile force, measured using an extensometer, needed to detach the 38 mm^2 surfaces of two respective rigid, inert, nonabsorbent supports (A) and (B), placed facing each other; said surfaces being precoated with a formulation consisting of the adhesive polymer(s) in the cosmetically acceptable medium, at a rate of 53/c $\mu g/mm^2$, dried for 24 hours at 22°C, under a relative humidity of 50%, and then subjected for 20 seconds to a compression of 3 newtons and finally subjected for 30 seconds to a tension at a speed of 20 mm/minute, c being the concentration of solids in the formulation consisting of the adhesive polymer(s) in the cosmetically acceptable medium, expressed in grams per gram of

composition.

Preferably, the supports (A) and (B) used consist of polyethylene, polypropylene, metal alloy or glass.

The maximum detachment force F_{max} is preferentially greater than 2.5 N.

Advantageously, the ratio of the relative weight concentrations between the adhesive polymer(s) and the solid particles in the cosmetic hair composition is between 0.05 and 50 and preferentially between 0.15 and 5.

According to one preferred embodiment of the invention, the adhesive polymers have a glass transition temperature of less than 10°C.

According to the present invention, the expression "separation energy $E_{(M/V)}$, the energy supplied by the extensometer to separate 38 mm^2 surfaces of two respective rigid, inert, nonabsorbent supports (C) and (D) placed facing each other, one of said supports consisting of polished glass and the other of said supports being of identical nature to the supports (A) and (B) defined above and whose surface is coated with the formulation of solids concentration c, at a rate of 53/c $\mu g/mm^2$ on the support, dried for 24 hours at 22°C

under a relative humidity of 50%; the two surfaces of said supports (C) and (D) then being subjected for 20 seconds to a compression of 3 newtons and finally subjected for 30 seconds to a tension at a speed of 20 mm/minute, c being the concentration of solids in the formulation, in grams per gram of composition.

This energy supplied by the extensometer is the energy calculated by means of the following formula:

$$\int_{Xs1 - 0.05}^{Xs2} F(x)\,dx$$

in which F(x) is the force required to produce a displacement (x);

X_{s1} is the displacement (expressed in millimeters) produced by the maximum tensile force;

X_{s2} is the displacement (expressed in millimeters) produced by the tensile force that allows the total separation of the two surfaces of the supports (C) and (D) defined above.

According to the invention, flakes, platelets, leaflets, fibrils or powders are preferably used as solid particle. The particles may be organic or mineral or may consist of organic and mineral components. Mention may be made, for example, of melanin or pigments, especially synthetic pigments, derived from the polymerization of indole or indoline compounds, for

instance 5,6-dihydroxyindole or 5,6-dihydroxyindoline.

The pigments in accordance with the invention are chosen from all the organic or mineral pigments that do not result from the oxidative polymerization of cosmetically or dermatologically acceptable indole compounds.

They may be in the form of pigmentary paste or powder.

Among the mineral pigments that may be mentioned, for example, are titanium dioxide (rutile or anatase) that is optionally surface-treated, classified in the Color Index under the reference CI77891; black, yellow red and brown iron oxides, classified under the references CI77499, 77492 and 77491; manganese violet (CI77742); ultramarine blue (CI77007); hydrated chromium oxide (CI77289); ferric blue (CI77510).

Among the organic pigments that may be mentioned, for example, are the pigment Yellow 3 sold in particular under the trade name "Jaune Covanor W 1603" by the company Wackherr (CI 17710), "D & C Red No. 19" (CI 45170), "D & C Red No. 9" (CI 15585), "D & C Red No. 21" (CI 45380), "D & C Orange No. 4" (CI 15510), "D & C Orange No. 5" (CI 45370), "D & C Red No. 27" (CI 45410), "D & C Red No. 13" (CI 15630), "D & C Red No. 7" (CI 15850-1), "D & C Red No. 6" (CI 15850-2), "D

& C Yellow No. 5" (CI 19140), "D & C Red No. 36" (CI 12085), "D & C Orange No. 10" (CI 45425), "D & C Yellow No. 6" (CI 15985), "D & C Red No. 30" (CI 73360), "D & C Red No. 3" (CI 45430), carbon black (CI 77266) and lakes based on cochineal carmine (CI 75470).

It is also possible to use nacreous pigments, which may be chosen in particular from white nacreous pigments such as mica coated with titanium oxide or bismuth oxide; colored nacreous pigments such as titanium mica with iron oxides, titanium mica with ferric blue or with chromium oxide, titanium mica with an organic pigment of the abovementioned type, and also those based on bismuth oxychloride.

Pigmentary pastes of an organic pigment that are used more particularly are those such as the products sold by the company Hoechst under the name:

Jaune Cosmenyl 10G	:	Yellow 3 Pigment (CI 11710)
Jaune Cosmenyl G	:	Yellow 1 Pigment (CI 11680)
Orange Cosmenyl GR	:	Orange 43 Pigment (CI 71105)
Rouge Cosmenyl R^c	:	Red 4 Pigment (CI 12085)
Carmin Cosmenyl FB	:	Red 5 Pigment (CI 12490)
Violet Cosmenyl RL	:	Violet 23 Pigment (CI 51319)
Bleu Cosmenyl A2R	:	Blue 15.1 Pigment (CI 74260)
Vert Cosmenyl GG	:	Green 7 Pigment (CI 74260)
Noir Cosmenyl R	:	Black 7 Pigment (CI 77266)

The particles advantageously have a size of less than 1 mm, and preferably a size of less than 100 μm or even more preferentially a size of less than 30 μm.

For the purposes of the present invention, the expression "particle size" means the maximum dimension that it is possible to measure between two opposite points on the particle. The size may be determined by electron microscopy.

The particles may give rise to various cosmetic effects, for example:

- effects resulting from the interaction with light: coloring, shiny, sparkling, light-scattering, diffracting, screening or matt effect,
- mechanical or physicochemical effects: fiber-reinforcing effect, welding effect between close fibers, softening effect, antiwetting effect, effect limiting the uptake of water by humidity or washing.

In the compositions according to the invention, the relative weight concentration of adhesive polymer is preferably between 0.05% and 30%, more preferentially between 0.1% and 20% and even more preferentially between 0.2% and 10%. The relative weight concentration of solid particles is preferably between 0.1% and 50%,

more preferentially between 0.5% and 40% and even more preferentially between 1% and 25%.

The compositions in accordance with the invention preferably contain an organic solvent chosen from the group comprising C_1 to C_4 alcohols such as ethanol or isopropanol, C_5 to C_{10} alkanes, acetone, methyl ethyl ketone, methyl acetate, butyl acetate, ethyl acetate, dimethoxyethane and diethoxyethane, and mixtures thereof.

They may also contain common cosmetic additives chosen from reducing agents, for instance thiols, silanes, for instance aminopropyltriethoxysilane, fatty substances, thickeners, softeners, antifoams, moisturizers, anti-perspirants, basifying agents, colorants, fragrances, preserving agents, surfactants, fixing or nonfixing polymers, volatile or nonvolatile silicones, especially anionic silicones, polyols, proteins and vitamins.

The compositions in accordance with the invention may be packaged in various forms, especially in an aerosol device.

The invention may be understood more clearly with the aid of the nonlimiting examples which follow and which constitute preferential embodiments of the process in accordance with the invention.

In the examples, the percentages are expressed on a weight basis.

EXAMPLES

Example 1: Formulations containing leaflets

A composition in accordance with the invention containing solid particles and an adhesive polymer defined by a maximum detachment force of greater than 1 N, and compositions not in accordance with the invention containing the same solid particles but without an adhesive polymer in the sense of the invention, are compared below.

Formulation 1 (invention):

AQ 1350 (Eastman Kodak)		4 g
Reflective leaflets[2]		5 g
Jaguar HP 60[1]		1 g
Demineralized water	qs	100 g

(1): hydroxypropyl guar sold by Rhodia Chimie

(2): sold under the name Timiron Color Violet by Merck

Formulation 2 (prior art):

Reflective leaflets[2]		5 g
Jaguar HP 60[1]		1 g
Demineralized water	qs	100 g

Formulation 3 (prior art):

Reflective leaflets[2]		5 g
Glycerol		4 g
Demineralized water	qs	100 g

The three formulations are applied to locks of natural chestnut-colored hair at a rate of 1 g of formulation per 5 g of hair. The locks are left to stand for 30 seconds. The quality of the three locks is then evaluated.

It is observed that the locks treated with formulation 1 have, unlike the lock treated with formulation 3, a natural, soft feel. The lock treated with formulation 3 has a greasy, unpleasant feel. It is also observed that the leaflets of the lock treated with formulation 1 withstand movements better than the leaflets of the other locks treated with compositions 2 and 3.

Example 2: Formulation containing pigments

Formulation 4 below in accordance with the present invention is prepared.

Formulation 4 (invention):

AQ 1350 (Eastman Kodak)		5 g
Pigment[3]		5 g
Jaguar HP 60[1]		1 g
Demineralized water	qs	100 g

(3): sold by Kohnstamm under the name Ultramarine Blue A 4575

Formulation 4 is applied to a lock of natural gray hair (containing 90% white hairs) at a rate of 1 g of formulation per 5 g of hair. The lock is left to stand for 30 seconds. The quality of the lock is then evaluated.

It is observed that the lock treated with formulation 4 has a natural, soft feel. It is also observed that the blue coloration obtained is very resistant to the movements of the lock and shows very good resistance in the case of friction.

CLAIMS

1. A cosmetic hair composition comprising solid particles in a cosmetically acceptable medium, characterized in that it also comprises at least one adhesive polymer chosen such that the material resulting from the drying of this or these adhesive polymer(s) in the cosmetically acceptable medium has a detachment profile defined by at least one maximum detachment force F_{max} of greater than 1 N.

2. The composition as claimed in claim 1, characterized in that the maximum detachment force F_{max} is the maximum tensile force, measured using an extensometer, needed to detach the 38 mm^2 surfaces of two respective rigid, inert, nonabsorbent supports (A) and (B), placed facing each other; said surfaces being precoated with a formulation consisting of the adhesive polymer(s) in the cosmetically acceptable medium, at a rate of 53/c $\mu g/mm^2$, dried for 24 hours at 22°C, under a relative humidity of 50%, and then subjected for 20 seconds to a compression of 3 newtons and finally subjected for 30 seconds to a tension at a speed of 20 mm/minute, c being the concentration of solids in the formulation consisting of the adhesive polymer(s) in the cosmetically acceptable

medium, expressed in grams per gram of composition.

3. The composition as claimed in claim 2, characterized in that the supports (A) and (B) consist of polyethylene, polypropylene, metal alloy or glass.

4. The composition as claimed in any one of the preceding claims, characterized in that the maximum detachment force F_{max} is greater than 2.5 N.

5. The composition as claimed in any one of the preceding claims, characterized in that the material resulting from the drying of this or these adhesive polymer(s) in the cosmetically acceptable medium has a glass transition temperature (Tg) of less than +10°C and has a detachment profile defined by at least:

   (a) a maximum detachment force F_{max} > 1 newton, and

   (b) when said temperature Tg is less than -15°C, by a separation energy $E_{(M/V)}$ of the material placed in contact with a glass surface, of less than 300 μJ.

6. The composition as claimed in claim 5, charac-

terized in that the separation energy $E_{(M/V)}$ is the energy supplied by the extensometer to separate 38 mm^2 surfaces of two respective rigid, inert, nonabsorbent supports (C) and (D) placed facing each other, one of said supports consisting of polished glass and the other of said supports being of identical nature to the supports (A) and (B) defined above and whose surface is coated with the formulation of solids concentration c, at a rate of $53/c$ $\mu g/mm^2$ on the support, dried for 24 hours at 22°C under a relative humidity of 50%; the two surfaces of said supports (C) and (D) then being subjected for 20 seconds to a compression of 3 newtons and finally subjected for 30 seconds to a tension at a speed of 20 mm/minute, c being the concentration of solids in the formulation, in grams per gram of composition.

7. The composition as claimed in claim 6, characterized in that the energy supplied by the extensometer is the work calculated by means of the following formula:

$$\frac{\int_{Xs1-0.05}^{Xs2} F(x)\,dx}{}$$

in which F(x) is the force required to produce a displacement (x);

X_{s1} is the displacement (expressed in millimeters)

produced by the maximum tensile force;

X_{s2} is the displacement (expressed in millimeters) produced by the tensile force that allows the total separation of the two surfaces of the supports (C) and (D) defined above.

8. The composition as claimed in any one of the preceding claims, characterized in that the solid particles are chosen from the group comprising flakes, platelets, leaflets, fibrils and powders.

9. The composition as claimed in any one of the preceding claims, characterized in that the particles have a size of less than 1 mm, and preferably a size of less than 100 µm or even more preferentially a size of less than 30 µm.

10. The composition as claimed in any one of the preceding claims, characterized in that the relative weight concentration of adhesive polymer is between 0.05% and 30%, more preferentially between 0.1% and 20% and even more preferentially between 0.2% and 10%.

11. The composition as claimed in any one of the preceding claims, characterized in that the relative weight concentration of solid particles is between 0.1% and 50%, more preferentially between

0.5% and 40% and even more preferentially between 1% and 25%.

12. The composition as claimed in any one of the preceding claims, characterized in that it also comprises an organic solvent chosen from the group comprising C_1 to C_4 alcohols such as ethanol or isopropanol, C_5 to C_{10} alkanes, acetone, methyl ethyl ketone, methyl acetate, butyl acetate, ethyl acetate, dimethoxyethane and diethoxyethane, and mixtures thereof.

13. The composition as claimed in any one of the preceding claims, characterized in that it also contains common cosmetic additives chosen from reducing agents, for instance thiols, silanes, for instance aminopropyltriethoxysilane, fatty substances, thickeners, softeners, antifoams, moisturizers, antiperspirants, basifying agents, colorants, fragrances, preserving agents, surfactants, fixing or nonfixing polymers, volatile or nonvolatile silicones, especially anionic silicones, polyols, proteins and vitamins.

14. The composition as claimed in any one of the preceding claims, characterized in that it is packaged in an aerosol device.

15. A cosmetic hair process, characterized in that a composition as defined in claims 1 to 14 is applied to the hair.

16. The use of a composition as claimed in any one of claims 1 to 14, in the manufacture of a styling, coloring, sheen or conditioning composition for the hair.

17. A cosmetic hair product, characterized in that it comprises a composition as claimed in any one of claims 1 to 14.

18. The product as claimed in claim 17, characterized in that it is a hairstyling product.

19. The product as claimed in claim 17, characterized in that it is a product intended to give the hair sheen.

20. The product as claimed in claim 17, characterized in that it is a product intended to give the hair coloring effects.

DA 99188 US

PTO/SB/105 (8-96)
Approved for use through 9/30/98. OMB 0651-0032
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Attorney Docket No.: 05725.1016-00000

Declaration and Power of Attorney for Patent Application

Déclaration et Pouvoir pour Demande de Brevet

French Language Declaration

En tant que l'inventeur nommé ci-après, je déclare par le présent acte que:	As a below named inventor, I hereby declare that:
Mon domicile, mon adresse postale et ma nationalité sont ceux figurant ci-dessous à côté de mon nom.	My residence, post office address and citizenship are as stated next to my name.
Je crois être le premier inventeur original et unique (si un seul nom est mentionné ci-dessous), ou l'un des premiers co-inventeurs originaux (si plusieurs noms sont mentionnés ci-dessous) de l'objet revendiqué, pour lequel une demande de brevet a été déposée concernant l'invention intitulée	I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled HAIR COMPOSITIONS COMPRISING AT LEAST AN ADHESIVE POLYMER AND SOLID PARTICLES
et dont la description est fournie ci-joint à moins que la case suivante n'ait été cochée:	the specification of which is attached hereto unless the following box is checked:
☒ a été déposée le _____ sous le numéro de demande des Etats-Unis ou le numéro de demande international PCT _____ et modifiée _____ (les cas échéant).	☒ was filed on June 23, 2000 as United States Application Number or PCT International Application Number PCT/FR00/01763 and was amended on _____ (if applicable).
Je déclare par le présent acte avoir passé en revue et compris le contenu de la description ci-dessus, revendications comprises, telles que modifées par toute modification dont il aura été fait référence ci-dessus.	I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above
Je reconnais devoir divulguer toute information pertinente à la brevetabilité, comme défini dans le Titre 37, § 1.56 du Code fédéral des réglementations.	I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

French Language Declaration	
Je revendique par le présent acte avoir la priorité étrangère, en vertu du Titre 35, § 119(a)-(d) ou § 365(b) du Code des Etats-Unis, sur toute demande étrangère de brevet ou certificat d'inventeur ou, en vertu du Titre 35, § 365(a) du même Code, sur toute demande internationale PCT désignant au moins un pays autre que les Etats-Unis et figurant ci-dessous et, en cochant la case, j'ai aussi indiqué ci-dessous toute demande étrangère de brevet, tout certificat d'inventeur ou toute demande internationale PCT ayant une date de dépôt précédant celle de la demande à propos de laquelle une priorité est revendiquée.	I hereby claim foreign priority under Title 35, United States Code, § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT International Application which designated at least one country other than the United States, listed below, and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed.
Prior foreign application(s) Demande(s) de brevet antérieure(s)	Priority Not Claimed Droit de priorité non revendiqué
99/08309 (Number) (Numéro) — **France** (Country) (Pays)	29/June/1999 (Day/Month/Year Filed) (Jour/Mois/Anné de dépot) ☐
(Number) (Numéro) — (Country) (Pays)	(Day/Month/Year Filed) (Jour/Mois/Anné de dépot) ☐
Je revendique par le présent acte tout bénéfice, en vertu du Titre 35, § 119(e) du Code des Etats-Unis, de toute demande de brevet provisoire effectuée aux Etats-Unis et figurant ci-dessous.	I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below.
(Application No.) (N° de demande) — (Filing Date) (Date de dépot)	(Application No.) (N° de demande) — (Filing Date) (Date de dépot)
(Application No.) (N° de demande) — (Filing Date) (Date de dépot)	(Application No.) (N° de demande) — (Filing Date) (Date de dépot)
Je revendique par le présent acte tout bénéfice, en vertu du Titre 35, § 120 du Code des Etats-Unis, de toute demande de brevet effectuée aux Etats-Unis, ou en vertu du Titre 35, § 365(c) du même Code, de toute demande internationale PCT désignant les Etats-Unis et figurant ci-dessous et, dans la mesure où l'objet de chacune des revendications de cette demande de brevet n'est pas divulgué dans la demande antérieure américaine ou internationale PCT, en vertu des dispositions du premier paragraphe du Titre 35, § 112 du Code des Etats-Unis, je reconnais devoir divulguer toute information pertinente à la brevetabilité, comme défini dans le Titre 37, § 1.56 du Code fédéral des réglementations, dont laquelle est devenue disponible entre la date de dépôt de la demande antérieure, et la date de dépôt de la demande nationale ou internationale PCT de la présente demande:	I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s), or § 365(c) of any PCT International Application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International Application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose any or all information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.
(Application No.) (N° de demande) — (Filing Date) (Date de dépot)	(Status) (patented, pending, abandoned) (Status) (breveté, en cours d'examen, abandonné)
(Application No.) (N° de demande) — (Filing Date) (Date de dépot)	(Status) (patented, pending, abandoned) (Status) (breveté, en cours d'examen, abandonné)
Je déclare par le présent acte que toute déclaration ci-incluse est, à ma connaissance, véridique et que toute déclaration formulée à partir de renseignements ou de suppositions est tenue pour véridique; et de plus, que toutes ces déclarations ont été formulées en sachant que toute fausse déclaration volontaire ou son équivalent est passible d'une amende ou d'une incarcération, ou des deux, en vertu de la Section 1001 du Titre 18 du Code des Etats-Unis, et que de telles déclarations volontairement fausses risquent de compromettre la validité de la demande de brevet ou du brevet délivré à partir de celle-ci.	I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

French Language Declaration	
POUVOIRS: En tant que l'inventeur cité, je désigne par la présente l'(les) avocat(s) et/ou agent(s) suivant(s) pour qu'ils poursuive(nt) la procédure de cette demande de brevet et traite(nt) toute affaire s'y rapportant avec L'Office des brevets et des marques: *(mentionner le nom et le numéro d'enregistrement)*.	POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this patent application and transact all business in the Patent and Trademark Office connected therewith: (*list name and registration number*): **FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P., Reg. No. 22,540**, Douglas B. Henderson, Reg. No. 20,291; Ford F. Farabow, Jr., Reg. No. 20,630; Arthur S. Garrett, Reg. No. 20,338; Donald R. Dunner, Reg. No. 19,073; Brian G. Brunsvold, Reg. No. 22,593; Tipton D. Jennings, IV, Reg. No. 20,645; Jerry D. Voight, Reg. No. 23,020; Laurence R. Hefter, Reg. No. 20,827; Kenneth E. Payne, Reg. No. 23,098; Herbert H. Mintz, Reg. No. 26,691; C. Larry O'Rourke, Reg. No. 26,014; Albert J. Santorelli, Reg. No. 22,610; Michael C. Elmer, Reg. No. 25,857; Richard H. Smith, Reg. No. 20,609; Stephen L. Peterson, Reg. No. 26,325; John M. Romary, Reg. No. 26,331; Bruce C. Zotter, Reg. No. 27,680; Dennis P. O'Reilley, Reg. No. 27,932; Allen M. Sokal, Reg. No. 26,695; Robert D. Bajefsky, Reg. No. 25,387; Richard L. Stroup, Reg. No. 28,478; David W. Hill, Reg. No. 28,220; Thomas L. Irving, Reg. No. 28,619; Charles E. Lipsey, Reg. No. 28,165; Thomas W. Winland, Reg. No. 27,605; Basil J. Lewris, Reg. No. 28,818; Martin I. Fuchs, Reg. No. 28,508; E. Robert Yoches, Reg. No. 30,120; Barry W. Graham, Reg. No. 29,924; Susan Haberman Griffen, Reg. No. 30,907; Richard B. Racine, Reg. No. 30,415; Thomas H. Jenkins, Reg. No. 30,857; Robert E. Converse, Jr., Reg. No. 27,432; Clair X. Mullen, Jr., Reg. No. 20,348; Christopher P. Foley, Reg. No. 31,354; John C. Paul, Reg. No. 30,413; Roger D. Taylor, Reg. No. 28,992; David M. Kelly, Reg. No. 30,953; Kenneth J. Meyers, Reg. No. 25,146; Carol P. Einaudi, Reg. No. 32,220; Walter Y. Boyd, Jr., Reg. No. 31,738; Steven M. Anzalone, Reg. No. 32,095; Jean B. Fordis, Reg. No. 32,984; Barbara C. McCurdy, Reg. No. 32,120; James K. Hammond, Reg. No. 31,964; Richard V. Burgujian, Reg. No. 31,744; J. Michael Jakes, Reg. No. 32,824; Thomas W. Banks, Reg. No. 32,719; Christopher P. Isaac, Reg. No. 32,616; Bryan C. Diner, Reg. No. 32,409; M. Paul Barker, Reg. No. 32,013; Andrew Chanho Sonu, Reg. No. 33,457; David S. Forman, Reg. No. 33,694; Vincent P. Kovalick, Reg. No. 32,867; James W. Edmondson, Reg. No. 33,871; Michael R. McGurk, Reg. No. 32,045; Joann M. Neth, Reg. No. 36,363; Gerson S. Panitch, Reg. No. 33,751; Cheri M. Taylor, Reg. No. 33,216; Charles E. Van Horn, Reg. No. 40,266; Linda A. Wadler, Reg. No. 33,218; Jeffrey A. Berkowitz, Reg. No. 36,743; Michael R. Kelly, Reg. No. 33,921; James B. Monroe, Reg. No. 33,971; Doris Johnson Hines, Reg. No. 34,629; Allen R. Jensen, Reg. No. 28,224; Lori Ann Johnson, Reg. No. 34,498; and David A. Manspeizer, Reg. No. 37,540; **and** Thalia V. Warnement, Reg. No. 39,064; Michele C. Bosch, Reg. No. 40,524; Mark D. Sweet, Reg. No. 41,469; Anthony M. Gutowski, Reg. No. 38,742; and Andrew J. Vance, Reg. No. 45,174.

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